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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/365,510	08/02/1999	KENJI SUZUKI	35.C13719	1896

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EXAMINER

MAYES, MELVIN C

ART UNIT PAPER NUMBER

1734

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/365,510

Applicant(s)

SUZUKI ET AL.

Examiner

Melvin Curtis Mayes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-8, 12-14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 12-14, 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 4 and 6-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

(1)

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 7, 2004 has been entered.

### ***Claim Rejections - 35 USC § 112***

(2)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

(3)

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 claims that “a glass transition point of the thermoplastic film is lower than a glass transition point of a binder resin ...or a film-forming temperature of the thermoplastic film is lower than ...” but Claim 1 claims a thermoplastic resin film having two glass transition points, one for each of the thermoplastic polymer layers. To which of the thermoplastic polymer

layers of Claim 1 do the “glass transition point” and “film-forming temperature” of Claim 4 refer? This is not clear.

***Claim Rejections - 35 USC § 103***

(4)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(5)

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 59-091079 in view of JP 10-44605 and Stone 4,978,560.

JP 59-091079 discloses an apparatus for recording comprising: ink jet recording heads 12 for recording an image on a recording paper (ink-jet head); a roller pair 27 where the recording paper and a laminate material are aligned and laminated (laminate section); and a pressure roller pair 28 with built-in heater where the laminate material is applied onto the surface of the imaged paper through melting under heating to protect the image (heating and pressurizing means). The pressure roller pair comprises rollers 28 having heaters 29 (Abstract and oral translation).

JP ‘079 does not disclose that the roller of the pressure roller pair that comes into contact with the laminate resin material has a surface roughness of 3  $\mu\text{m}$  or less.

JP 10-44605 teaches that the protective layer of a recorded paper can be enhanced in glossiness by feeding the recording paper between a heated mirror-plane cylinder 40 of mirror plane of 200% or more and platen roller 34 to heat and press the protective layer to soften the protective layer (computer translation, paragraphs 0019-0024).

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Stone teaches that a hot roll glosser which is used to gloss or transparentize resin coated receiver sheets comprises internally heated rolls, the rolls to come into contact with the resin having a gloss silicone rubber overcoat to prevent adhesion or sticking of the resin with the surface and to provide the desired glossing and transparentizing of the resin. Stone further teaches that the silicon rubber coating should have a smoothness in the order of 16 microinches ( $0.4\text{ }\mu\text{m}$ ) or better (col. 5, line 61 – col. 6, line 14).

It would have been obvious to one of ordinary skill in the art to have modified the apparatus of JP '079 for recording by providing the heated pressure roller of mirror plane of 200% or more, as taught by JP '605, to enhance glossiness of the laminate material resin film. By feeding the laminate of resin film and imaged paper between heated mirror-plane rollers of mirror plane of 200% or more after laminating to enhance glossiness, as taught by JP '605, the surface of the resin film is obviously plasticized (made plastic) and smoothed by a heated pressure roller (heating and pressurizing means).

Further, providing the heated pressure roller with a gloss surface by providing the surface with a smoothness (surface roughness) of 16 microinches ( $0.4\text{ }\mu\text{m}$ ) or better (within the range of  $3\text{ }\mu\text{m}$  or less as claimed) would have been obvious to one of ordinary skill in the art, as taught by Stone, as the smoothness of a hot roll glosser used for glossing and transparentizing a resin coating.

It would have been obvious to one of ordinary skill in the art to have even further modified the apparatus of the references as combined by providing the heated pressure roll used to transparentize and impart glossiness to the laminate resin material with a surface of silicone

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rubber, as claimed in Claims 7 and 8, as taught by Stone, to prevent adhesion or sticking of the resin with the surface and to provide the desired glossing and transparentizing of the resin.

The language in Claim 6 directed to the laminating film supplied from a roll, having a thickness of 2 to 40  $\mu\text{m}$  and consisting of a film composed of two thermoplastic polymer layers of different glass transition point do not impart any patentable limitations to the apparatus but refer only to a laminating film capable of laminating in the claimed "lamine section" and plasticizing and smoothing in the claimed "heating and pressurizing means."

***Allowable Subject Matter***

(6)

Claims 1-3, 12-14, 17 and 18 are allowed.

(7)

Claim 4 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Conclusion***


(8)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melvin Curtis Mayes  
Primary Examiner  
Art Unit 1734

MCM  
February 22, 2005